

ABSTRACT

A method and an improved multilayer hinge structure for use in a micromirror device for a spatial light modulator are provided herein. The micromirror device presents a conductive, composite torsion hinge with improved mechanical reliability, achieved by optimizing the geometry of the hinge, which minimizes the amount of residual twist, fixed torsional stiffness and fixed rate of plastic deformation in the mechanically undesirable hinge element. A method and its alternatives are disclosed herein by the present invention for manufacturing such multilayer hinge structure.